

## **Issue Characterization: GFNMS - Education**

### **Issue Description:**

Gulf of the Farallones NMS needs to develop a long term education strategy to raise the public's awareness about the local and regional marine environment and issues affecting it, and engage the public in working with the Sanctuary towards better resource protection (stewardship).

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Education programs are designed to enhance public awareness and understanding of the Sanctuary and the resources, and build stewards to take on the responsibility of protecting these special places. The development of effective and coordinated education programs is a priority for all three sanctuaries. GFNMS and CBNMS will work to develop both individual and long-term coordinated education strategies to raise the public's awareness about the local and regional marine environment and how to become involved in the sanctuaries. These education programs will complement the broad-based community outreach efforts by focusing on targeted classroom audiences such as middle grades, high schools, summer camp programs and multilingual settings.

GFNMS will use education as a resource management tool to address specific priority resource management issues identified in the management plan review process. Education is essential to achieving many of the Sanctuary's management objectives, and is used to both complement and promote other Sanctuary programs such as research, monitoring and enforcement by carrying information about these programs into the classroom.

The Farallones Marine Sanctuary Association (FMSA) works collaboratively with GFNMS to implement various education, interpretation and monitoring programs. GFNMS, in cooperation with FMSA, sponsors student summits, lectures, teacher trainings, summer camps and other education programs. FMSA is also supporting the development of a Coastal Ecosystem curriculum for high school students and multicultural programs with the San Francisco Dept. of Parks and Recreation and the California Coastal Commission.

### **Working Group Contact:**

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### **Current Education and Outreach Programs:**

- COASTAL ECOSYSTEM EDUCATION PROGRAM - (9-12) (FMSA) This comprehensive program includes a teacher workshop, the Coastal Ecosystem Curriculum and student monitoring.
- SANCTUARY EXPLORERS CAMP - (8-13 yrs) (FMSA) This unique educational and recreational opportunity is a cooperative effort with San Francisco's Recreation and Park Department and includes inner city youth at no cost.
- SCHOOL PROGRAM (K-8) (FMSA) The Sanctuary Visitor Center provides an ideal setting to engage students and encourage them to take an active role in protection of special environments that surround the San Francisco Bay Area. A range of activities are offered that cater to class levels and needs.

### **Current Volunteer Programs:**

- THE SEALS PROGRAM: VOLUNTEERING FOR WILDLIFE STUDIES (18 yrs+) (FMSA) The SEALS program was established to document the impacts of human activity on harbor seals in Bolinas Lagoon and Tomales Bay. The goal of the program is to minimize disturbance to the seal colonies and educate the community about protection of their habitat.
- BEACH WATCH (FMSA) - Beach Watch is a long-term beach monitoring program where every four weeks dedicated volunteers survey "their beach" for live and dead animals. Beach

Watch volunteers come from all walks of life, but share a common interest in protecting, learning about, and contributing to the betterment of the environment.

**Current Visitor Centers:**

- NATIONAL MARINE SANCTUARY VISITOR CENTER - Crissy Field - Includes a stunning 15 foot ocean mural, interactive touch tank, information about the Gulf of the Farallones National Marine Sanctuary and a place to learn how to get involved in protecting the local marine environment. In 2000, visitor center volunteers donated 500 hours and educated 20,000 visitors.
- PACIFICA VISITOR CENTER - located in Pacifica near Rockaway Beach, this visitor center is a great place for local information on Pacifica, the National Marine Sanctuaries and the Golden Gate National Recreation Area.

**Current Publications:**

- Beached Marine Birds
- Mammals of the North Pacific West Coast
- Brochures
- Posters
- Newsletters
- Website

**Current Outreach Efforts:**

- Annual Lecture Series
- Fairs and events
- Schools

**Current Partners:**

- Bodega Marine Lab
- University of California
- San Francisco Parks and Recreation Dept.
- California Coastal Commission
- California Academy of Sciences
- College of Marine
- San Francisco State University
- Stanford University
- Farallones National Marine Sanctuary Association
- The Ocean Conservancy
- Oceanic Society

**Priority Issues That May Have an Education/Outreach Component:**

- Ecosystem Monitoring (cross-cutting)
- Enforcement
- Fishing Activities
- Exotic/Invasive Species
- Research
- Vessel Traffic
- Water Quality
- Wildlife Disturbance

**What Other Related Issues Came Up During Scoping?**

- Continue and expand volunteer programs such as BEACH Watch and SEALS
- Establish an outreach program with the agriculture industry in Sonoma county
- Inform users and landowners about the Sanctuary and its regulations
- Sanctuary should work with the Steinhart Aquarium on outreach activities

- Would like to see more outreach to communities and schools as a part of the extension and development of the Beach Watch program. This would increase awareness and perhaps draw in more volunteers and donations
- Consider lowering the minimum age for Beach Watch volunteers to draw in more participants
- GFNMS should expand the publication of the Adopt-A-Beach program so that all schools and major businesses in the SF Bay Area get notifications about the program and its benefits
- GFNMS should work with chamber of commerce to offer educational seminars to adults
- Expand sanctuary lecture series and make it more accessible to the public
- More multicultural education programs
- More articles in local papers
- More education (kiosks) on tide pool issues and the impacts that occur from extraction of organisms.
- More education on the consequences of human action and what people can do to help
- More education on the environmental impacts related to population growth
- Improve educational material on website regarding regulated and prohibited activities
- Sanctuary should do a study on the effectiveness of education vs. regulation in changing behaviors
- More K-12 educational materials for classroom curricula, including audio/visual, public access cable, and internet
- More education of politicians and elected officials
- Sanctuary should educate people who live inland, about how their actions can affect the ocean
- Utilize models and hands-on exhibits for education throughout Sanctuary area
- Sanctuaries should use more on-site educational tools like visitor centers and signage
- Need public education regarding gas use and drilling connection
- Sanctuaries should encourage more marine biology education at the high school level. This education should include more technical programs such as shoreline monitoring
- Sanctuaries should support academic/science competitions e.g. "National Ocean Science Bowl"
- Sanctuaries should hold more public forums on research within the sanctuaries
- Sanctuaries should conduct more watershed education
- Continue use of political figures for message delivery
- Need signs on Coast Highway
- Sanctuary should emphasize positive aspects of fishing (food, jobs, recreation)
- Develop and implement a regional education plan
- Articulate and educate the public about the meaning of the concept "Sanctuary"
- Sanctuary should put out a newsletter that could be included in local newspapers
- GFNMS educational efforts should focus on: endangered marine mammals, fishing, pollution, and a new visitor center
- Educate the California Legislature and Federal Government about accomplishments and issues of concern to sanctuary
- Post regulations at marinas
- Offshore sanctuaries should use technology to bring the sanctuary to the public
- Adopt program like FKNMS's school education program (ensures every school child in FK visits the FKNMS)
- Sanctuary should conduct an education program to address marine debris and discharge
- Sanctuaries should coordinate with other agencies to create one joint interpretive center, rather than 1 center for each agency